

BEFORE THE  
POSTAL REGULATORY COMMISSION  
WASHINGTON, DC 20268-0001

Periodical Reporting  
(Proposal Thirteen)

Docket No. RM2015-7

PUBLIC REPRESENTATIVE INITIAL COMMENTS  
ON UNITED PARCEL SERVICE'S SUPPLEMENTAL REPORT

(July 8, 2015)

I. INTRODUCTION

This proceeding commenced with the Postal Service's Petition requesting the Commission to consider a proposed change in analytical principles, proposal thirteen, relating to the Postal Service's periodic reports.<sup>1</sup> The Postal Service seeks Commission approval to update the Postal Service's City Carrier Street Time cost model. The Postal Service anticipates implementing this methodology change as the basis for its FY 2015 reporting of city carrier street time costs. Petition at 2.

Pursuant to the Commission's Notice and Order initiating this proceeding,<sup>2</sup> the Public Representative filed Comments on March 18, 2015.<sup>3</sup> The Public Representative's Comments focused primarily on matters relating to the Postal Service's special study of large packages and accountables.

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<sup>1</sup> Petition of the United States Postal Service for the Initiation of a Proceeding to Consider Proposed Change in Analytical Principles (Proposal Thirteen), December 11, 2014 (Petition).

<sup>2</sup> Notice and Order on Petition for Rulemaking (Proposal Thirteen), Order No. 2294, December 18, 2014.

<sup>3</sup> Comments were also filed by the Direct Marketing Association on March 11, 2015 and United Parcel Service and the Association for Postal Commerce on March 18, 2015. Reply comments were filed by the Postal Service, the National Postal Policy Council and the Parcel Shippers Association on May 13, 2015.

UPS's March 18, 2015 comments included a report of Kevin Neels critiquing the Postal Service's econometric analysis and offering an alternative analysis of carrier street time volume variability. UPS Comments, Exhibit A.

## II. UPS SUPPLEMENTAL REPORT

On April 23, 2015, the Commission granted a United Parcel Service (UPS) motion requesting the Commission to issue an information request and to grant access, subject to protective conditions, to the Postal Service's nonpublic "Crosswalk File" that un.masks all ZIP Codes in the Postal Service's nationwide Form 3999 data set.<sup>4</sup> UPS sought the crosswalk file to "stress test" the results of its alternate model against a broader set of data and to assist with other matters, such as further developing the appropriate methodology for distributing attributable costs to individual products under its model. UPS Motion for Information Request at 3.

Pursuant to the UPS's request, the Commission provided UPS the opportunity to complete its analysis of the Form 3999 data set and directed UPS to file a supplemental report by June 8, 2015.<sup>5</sup> UPS filed comments attaching its supplemental report on June 8, 2015.<sup>6</sup> The Public Representative hereby comments on UPS's supplemental report.<sup>7</sup>

## III. PUBLIC REPRESENTATIVE COMMENTS

In these Initial Comments on UPS's supplemental report, the Public Representative discusses some of the advantages of Dr. Neels' approach as well as some of the concerns regarding the adequacy of the data relied upon by Dr. Neels in his derivation of variabilities. The Public Representative cannot recommend adoption of Dr.

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<sup>4</sup> Order Granting United Parcel Service, Inc. Motion for Issuance of commission Information Request No. 1 and Revising Procedural Schedule, April 23, 2015 (Order No. 2455).

<sup>5</sup> Order No. 2455 at 12.

<sup>6</sup> United Parcel Service Comments Attaching Supplemental Report Related to Proposal Thirteen, June 8, 2015.

<sup>7</sup> Reply comments on the supplemental report are due July 15, 2015.

Neels' approach at this time. Her reservations regarding Dr. Neels' approach are primarily due to the extent to which the data set had to be modified for use in his model.

As the Public Representative discussed in initial comments, it is unlikely that the number of parcels has no effect on regular delivery<sup>8</sup>. In fact, evidence provided by Dr. Neels in his initial report supports the hypothesis that parcel volumes affect regular delivery times<sup>9</sup>. In his National Form 3999 model, Dr. Neels includes the parcel variables in his regression equation<sup>10</sup>. The Public Representative supports this approach.

In initial comments, UPS and the Public Representative criticize several aspects of the Postal Service's Package and Accountable Study<sup>11</sup>. Among their concerns are the timing of the study, the limited duration and the effect of carriers altering their regular activities in order to capture the data sought by the Postal Service. The Public Representative continues to caution reliance on the Postal Service's Package and Accountable Study for calculating variabilities.

Dr. Neels' National Form 3999 model uses a flexible quadratic form and relates the gross street time dependent variable to measures of mail volume (DPS volume, SEQ volume, Cased mail, FSS mail, In-Receptacle Parcels, Deviation Parcels and Collection volume) and variables describing the delivery environment. Because volumes for in-receptacle parcels, deviation parcels and collection mail are not recorded consistently in the national Form 3999 dataset, Dr. Neels uses data from the Postal Service's Package and Accountable Study in order to impute volumes for deviation parcels, in-receptacle parcels, and collection volumes. Although Dr. Neels relies to

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<sup>8</sup> Public Representative Comments, March 18, 2015 at 13.

<sup>9</sup> United Parcel Service Comments on Postal Service Proposal Thirteen Regarding City Carrier Street Time Costs, March 18, 2015 at Exhibit A, 11-14.

<sup>10</sup> United Parcel Service Comments Attaching Supplemental Report Related To Proposal Thirteen, June 8, 2015 at 16.

<sup>11</sup> United Parcel Service Comments on Postal Service Proposal Thirteen Regarding City Carrier Street Time Costs, March 18, 2015 at 19-21 and Public Representative Comments, March 18, 2015 at 6-8.

some extent on the Postal Service's Package and Accountable Study, he does not rely on scan data from the study. The Public Representative generally favors an approach that is less reliant on the flawed Package and Accountable Study.

Another advantage of Dr. Neels' National Form 3999 model is that he does not remove what the Postal Service classifies as indirectly attributable or allied costs from the delivery cost pool. He takes total delivery time as the dependent variable in the model, and allows the results of the statistical analysis to measure the marginal costs associated with each individual mail stream. Directly estimating the volume variability of allied costs better reflects cost causation than piggybacking allied costs on direct costs.

The data provided by the Postal Service required Dr. Neels to take several steps to create a usable data set for analysis. The Public Representative is concerned that Dr. Neels may have taken too many liberties with the data. Although none of the procedures Dr. Neels uses are technically flawed, the amount of data manipulation required to produce the data set for his analysis raises questions regarding the validity of his results.

Dr. Neels used data from the Nonpublic Form 3999 Material Provided in Accordance with Order No. 2455 in USPS-RM2015-7/NP2. He took several steps to clean the data set. He identified obvious data entry errors and dropped the corresponding routes from the data set. Specifically, he dropped all the routes with an evaluation date on Sunday, all routes with zero or negative gross street time, all routes where the sum of reported cased letters, cased flats, DPS, FSS, sequenced, and parcel volumes are zero and all routes with zero possible deliveries (delivery points). This procedure, however, did not eliminate all routes with data entry errors and it does not appear that Dr. Neels directly examined whether and to what extent data errors were present post implementation.

Dr. Neels uses Winsorization, to deal with outliers. This procedure modifies outliers to bring their value closer to other sample values. Although, the Public

Representative agrees that outliers must be dealt with in some way, she questions the appropriateness of winsorizing instead all variables.

There are numerous possible causes for outliers. Outliers can be due to measurement error, clerical error or sampling error. Outliers can also be values that are genuine but extreme. Winsorization is only appropriate to deal with the latter. There's no reason to believe that the outliers in the Form 3999 dataset are exclusively genuinely extreme values. Although Dr. Neels removed routes with obvious data entry errors, data entry errors that did not result in zero values remain a likely source of error. In general, visible errors in a data set indicate many more errors that are not observable. Street time values in the dataset that are many times higher than the 99th percentile street time value are more likely to be data entry errors than genuinely extreme values. In this case, adjusting the extreme values may yield biased estimates.

Dr. Neels uses the Postal Service's Package and Accountable Study data to impute volumes to all routes in the 3999 database for FY 2012 and FY 2013. Not only did Dr. Neels have to impute a lot of these values, his imputation may have introduced significant measurement error, since several of the regression coefficients he uses to impute are not significant. Despite Dr. Neels clever approach, the Public Representative cautions that such wide-ranging manipulation of data may bias the results. The saying, "you can't squeeze blood from a rock" comes to mind.

Due to the questionable quality of the data used by Dr. Neels in his National Form 3999 model, the Public Representative cannot endorse the variabilities produced by Dr. Neels. Nonetheless, Dr. Neels approach makes several theoretical improvements over the Postal Service's model and should be reconsidered if more robust data become available. Going forward, the Public Representative agrees with UPS that it would be preferable to rely on data collected by the Postal Service in its ordinary scope of business than on special studies that are subject to serious cost constraints. The Commission should consider ordering the Postal Service to expand its collection of 3999 data or DOIS data to capture volumes for all relevant categories of mail.

#### IV. CONCLUSION

The Public Representative respectfully submits the foregoing comments for the Commission's consideration.

Respectfully submitted,

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